

CLAIMS

1. A system for rebinding a binding expression to a new network resource, wherein a data specification describes a resource required by the binding expression, the system comprising:

5 a data resolution service configured to discover network resources that satisfy the data specification; and
means for rebinding the binding expression to the new network resource when the data specification changes.

2. The system of claim 1, wherein the data specification is computed at least partially from previously received data.

3. The system of claim 1, wherein the means for rebinding receives announcements of changes in a currently bound network resource.

4. The system of claim 3, wherein the data resolution service communicates the announcements to the means for rebinding.

5. The system of claim 1, wherein the means for rebinding initiates rebinding according to programmer-specified criteria in response to the announcements.

6. A system for rebinding a binding expression to a new network resource, wherein a data specification describes a resource required by the binding expression and a resource descriptor describes a currently bound network resource, the system comprising:

5 a data resolution service configured to discover network resources that satisfy the data specification; and
means for rebinding the binding expression to the new network resource when the resource descriptor changes.

7. The system of claim 6, wherein the means for rebinding receives announcements of changes in the currently bound network resource from the data resolution service.

8. The system of claim 7, wherein the means for rebinding initiates rebinding according to programmer-specified criteria in response to the announcements.

9. A method for rebinding a binding expression to an appropriate network resource in a network, the binding expression being associated with a data specification describing the data required at the binding expression, the network including a current network
5 resource, and the network resources including at least one resource property, the method comprising:

obtaining a list indicating potential appropriate network resources;

10 selecting an appropriate network resource from the list; and
rebinding the binding expression to the appropriate network resource.

10. The method of claim 9, further comprising receiving an announcement of a change in the current network resource.

11. The method of claim 10, further comprising requesting the list upon receipt of the announcement.

12. The method of claim 9, further comprising determining whether the current network resource is no longer appropriate.

13. The method of claim 9, further comprising evaluating the data specification upon a request for a current value of the binding expression.

14. The method of claim 9, further comprising requesting the list upon a change in the value of the data specification.

15. The method of claim 9, further comprising obtaining an access port for the appropriate network resource.

16. The method of claim 9, further comprising if an error occurs, rebinding the binding expression to an error source.

17. The method of claim 9, wherein selecting the appropriate network resource further comprises determining the appropriate network resource according to programmer-specified criteria.

18. A system for rebinding a binding expression to an appropriate network resource in a network, the binding expression being associated with a data specification describing the data required at the binding expression, the network including a current network
5 resource, and the network resources including at least one resource property, the system comprising:

a data resolution service configured to provide a list indicating potential appropriate network resources; and

a port manager configured to provide an access port to the
10 appropriate network resource such that the binding expression rebinds to the appropriate network resource via the access port.

19. The system of claim 18, further comprising a binding module configured to select the appropriate network resource from the list indicating potential appropriate network resources.

20. The system of claim 19, wherein the data resolution service sends an announcement to the binding module when a change in the resource property of the current network resource occurs.

21. A computer program product embodied in a tangible media comprising:

computer readable program codes coupled to the tangible media for rebinding a binding expression to an appropriate network resource in a
5 network, the binding expression being associated with a data specification describing the data required at the binding expression, the network including a current network resource, and the network resources including at least one resource property, the computer readable program codes comprising:

10 first computer readable program code configured to cause the program to provide a list indicating potential appropriate network resources;

second computer readable program code configured to cause the
program to select an appropriate network resource from the list; and
15 third computer readable program code configured to cause the
program to rebind the binding expression to the appropriate network
resource.

22. The computer program product of claim 21, wherein the
tangible media comprises a magnetic disk.

23. The computer program product of claim 21, wherein the
tangible media comprises an optical disk.

24. The computer program product of claim 21, wherein the
tangible media comprises a propagating signal.

25. The computer program product of claim 21, wherein the
tangible media comprises a random access memory device.